

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	PS Docket No. 13-87
Proposed Amendments to the Service Rules Governing Public)	
Safety Narrowband Operations in the 769-775/779-805 MHz Bands)	

REPLY COMMENTS OF THE COMMONWEALTH OF VIRGINIA

The Commonwealth of Virginia, Department of State Police (“Commonwealth”), by its counsel, hereby submits Reply Comments on behalf of its Statewide Agencies Radio System (“STARS”) in response to the Comments filed by third parties to the April 1, 2013, Notice of Proposed Rulemaking (“NPRM”) in the above matter (FCC 13-40) inviting comments on proposals to amend the commission’s Rules governing 700 MHz public safety narrowband operations. The Commission sought comments on whether to extend or eliminate the December 31, 2016 narrowbanding deadline for 700 MHz public safety narrowband licensees to transition from 12.5 kHz to 6.25 kHz channel bandwidth technology. Specifically, the Commonwealth disagrees with Motorola’s position that only a short time extension may be necessary, and challenges the assertions of Harris that there is adequate 6.25 kHz technology and appropriate P25 Phase 2 standards currently in place to meet the December 31, 2016 narrowbanding deadline.

INTRODUCTION

STARS is a twenty-two state agency public safety grade statewide integrated voice and data system. STARS uses a digital trunked VHF narrowband system, which relies heavily on a 700 MHz digital vehicular repeater system (DVRS) in over 3,000 public safety vehicles to support portable based public safety communications. STARS would be required, under the

existing December 31, 2016 deadline, to incur significant expenses (approximately \$70 Million), for which it has no funds available, to convert to equipment which it is presently not being commercially offered by any manufacturer. The Commonwealth, on behalf of STARS, wishes to express its concerns about the December 31, 2016 deadline, and request that this deadline be suspended indefinitely or extended substantially for non-infrastructure based communications, and that a related December 31, 2014 equipment manufacture, marketing or importation deadline also be similarly extended.

REPLY COMMENTS

The Commonwealth believes that no deadline for a transition to 6.25 kHz technology should be established until i) the industry standard definition of 6.25 kHz technology is clarified for portable or mobile only communications (including talk around), and ii) 6.25 kHz industry standard vehicular repeater equipment is available from multiple manufacturers and shown to be effective.

STARS uses 700 MHz for its conventional link between the VHF cross-band vehicular repeater and local portable radios. Over 3,000 public safety vehicles across the state are equipped with digital vehicle repeaters and portable radios for officer communications when outside the vehicle.

The current rules specify two applicable dates: a December 31, 2016 deadline by which all 700 MHz licensees would need to operate with a 6.25 kHz equivalent efficiency; and a December 31, 2014 date by which manufacturers must include a 6.25 kHz efficiency mode in order to manufacture, market or import equipment (a radio with dual mode 12.5 kHz and 6.25 kHz efficiency would meet the requirement but such a vehicular repeater system currently does not exist).

In its Comments, Motorola Solutions, Inc. (“Motorola”) acknowledges that the Commission should strongly consider the recommendations of the user community in adjusting the 2016 interoperability deadline, but suggests that the Commission only extend by one year the 2014 equipment manufacture, marketing or importation deadline.

In its Comments, Harris Corporation (“Harris”) claims that any public safety user assertions of a lack of available 6.25 kHz technology equipment are no longer accurate, and that any assertions of the lack of P25 Phase 2 equipment and standards are also no longer correct.

The Commonwealth strongly disagrees with both of these Motorola and Harris positions.

STARS was designed and built by Motorola under a 2004 contract with the Commonwealth, and substantially completed in 2012 at a cost to the Commonwealth of \$380 million. It is not an antiquated legacy system relying on outdated equipment. The Motorola DVRS uses equipment from a Canadian manufacturer, Futurecom, for its vehicular repeaters.

Since the Commission’s 700 MHz narrowbanding deadline was announced, the Commonwealth has repeatedly asked Motorola how the STARS land mobile radio network can be made compliant with the 6.25 kHz standard through upgrades or replacements, and still has no answer from Motorola (other than the suggestion that the Commonwealth continue ordering vehicular repeaters from Canada and P25 Phase 1 portable radios). Motorola has not advised the Commonwealth what alternatives there are to the imported vehicular repeater. Should the December 31, 2014 importation deadline remain in place, the Commonwealth’s statewide radio system would be unable to add new first responders and would actually decrease users as equipment becomes unserviceable.

There is no known upgradability to a 6.25 kHz equivalent bandwidth for the XTS-5000 portable or Futurecom “MOBEXCOM P25” vehicular repeater, which make up the Motorola DVRS system.

There is no current manufacturer of 2016 compliant similar equipment or any plans underway that we can discern to manufacture and market equipment compatible with the Commonwealth’s over 3,000 DVRS units.

The Commonwealth is also very concerned that the cost of converting its entire 3,000 unit system to 6.25 kHz will be very substantial (approximately \$70 Million), with no source of state funding available in difficult budget times for state government, and with no obvious benefit given its system architecture or the users. STARS is a new system, state-of-the-art when designed and only completed recently, not an antiquated legacy system.

The facts outlined above regarding the lack of upgrades or equipment for the Commonwealth’s DVRS system refute Harris’ general claims that there is equipment readily available. When recently questioned, Harris did not offer a 6.25 kHz equivalent bandwidth vehicular repeater system.

Harris’ claims that there are P25 Phase 2 equipment and standards in place are also incorrect. Project 25 Phase 2 does not address vehicular repeaters nor direct subscriber-to-subscriber TDMA or 6.25 kHz FDMA non-trunked communications. Similarly, the 6.25 kHz equivalent narrowbanding standard makes sense for trunked operations, but not for direct primary mode subscriber-to-subscriber communications, Phase 1 compatible control channels, talk-around communications or failure mode communications when the repeaters revert to conventional operations.

If the Commission is unwilling to eliminate or substantially extend the December 31, 2014 equipment manufacturing, marketing or importation deadline, then it should at a minimum i) exclude conventional operation equipment from this deadline, since the 6.25 kHz equivalent standard only makes sense for infrastructure based trunked operations and P25 Phase 2 standards are only complete for trunked operations, or ii) exempt DVRS equipment completely.


The Commonwealth believes that the Project 25 Phase 1 and Phase 2 standards meet public safety long-term needs for mission critical voice coverage and statewide coverage. Until a rationale is shown for 6.25 kHz narrowbanding as applied to the STARS land mobile radio network, or the definition clarified to exclude applicability to STARS, and until industry standard equipment is commercially available from proven multiple sources, and sources of funding provided, the Commonwealth would support indefinite suspension or long-term extension of any deadline for 6.25 kHz narrowbanding, including both the December 31, 2016 operational deadline and the December 31, 2014 equipment manufacturing, marketing or importation deadline.

CONCLUSION

The Commonwealth supports a re-examination of the definition of the 6.25 kHz standard, and an indefinite suspension or substantial extension of any implementation deadline, if only to allow proven standards based equipment to become commercially available from multiple sources.

Respectfully submitted,

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF STATE POLICE

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